



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/817,076	07/15/97	YAMAMOTO	K 05905.0027

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EXAMINER

NGUYEN, T

ART UNIT

PAPER NUMBER

2779

DATE MAILED: 10/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.
08/817,076

Applicant(s)
Yamamoto

Examiner
Thu Nguyen

Group Art Unit
2779



☒ Responsive to communication(s) filed on Jul 6, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2-9 and 13-30 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 3, 5, 14, and 16 is/are allowed.

☒ Claim(s) 2, 4, 8, 9, 13, 15, 19-26, and 28-30 is/are rejected.

☒ Claim(s) 6, 7, 17, 18, and 27 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 8-9, 13, 15, 19-26, 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crane et al (U.S Patent No. 6,054,991) in view of Blahut et al (U.S Patent No. 5,463,728) and further in view of Harrison et al ("Transparent Layered User Interfaces: An Evaluation of a Display Design to Enhance Focused and Divided Attention", Conference on Human Factors and Computing systems, May 1995, Pages 317-324).

As per claim 2, 8, 9, 13, 23-26, 28-30, Crane et al discloses a virtual image generation apparatus which comprises: a shape data memory means (col.4, lines 56-60; col.9, lines 53-57); position specification means which specifies the position of moving object with respect to stationary objects (col.9, lines 13-16); overlap determining means which determines whether or not a stationary object is located between the viewpoint and operator-controlled object (abstract); image generation means for displaying the operator-controlled object and the stationary object and rendering the objects as a non-show through image in the event that both the operator-controlled object and the stationary object are not overlapped (fig.1).

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Crane et al does not disclose generating image data for displaying the operator-controlled object and the stationary objects such that when a stationary object is overlapped with the operator-controlled object, the stationary object is displayed as a show through image. However, Blahut et al disclose displaying an object as a show through image through which a second object is partially visible (col.3, lines 59-67; col.4, lines 1-7; col.15, lines 45-62). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to display a stationary object as translusion image so that the overlapped section of the moving object of Crane et al be seen as taught by Blahut et al. The motivation for this would have been to enhance divided attention to the user as motivated by Harrison in page 5, last paragraph; and page 6, first paragraph).

Crane et al does not explicitly discloses a terrain object. However, Crane et al discloses displaying stationary object 66 (fig.1). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to display a terrain object instead of displaying a stationary object of Crane et al, since the terrain object is just a stationary object with an image different from the wall 66 (fig.1) of Crane et al.

As per claim 4, 15, comparing the position of the centroid of the stationary object with the position of the centroid of the moving object to determine the overlapping status of the objects would have been well known to an ordinary person skilled in the art at the time the invention was made.

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As per claim 19, 20, 21, 22, including explosion, enemy robot, etc as terrain objects in a computer game would have been well known to an ordinary person skilled in the art at the time the invention was made.

Allowable Subject Matter

3. Claims 6-7, 17-18, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 3, 5, 14, and 16 are allowed.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gough et al (U.S Patent No. 5,949,432) discloses displaying translucent images on a computer display.

Nakamura et al (U.S Patent No. 5,202,672) discloses displaying translucent images on a computer display.

Frank et al (U.S Patent No. 5,651,107) discloses displaying multiple windows.

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

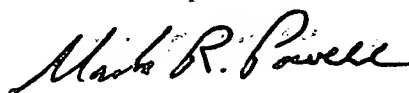
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on Monday-Thursday from 8:00 am to 5:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Powell, can be reached on (703) 305-9703. The fax phone number for this Group is (703)308-6606 .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)305-3900.

NTV

September 29, 2000



MARK R. POWELL
SUPERVISORY PATENT EXAMINER
GROUP 2700